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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,203	05/15/2006	Hideki Tatematsu	P29191	1020
52123 7590 11/28/2007 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER CHEN, SOPHIA S	
			ART UNIT 2852	PAPER NUMBER
			NOTIFICATION DATE 11/28/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/566,203	Applicant(s) TATEMATSU ET AL.	
	Examiner Sophia S. Chen	Art Unit 2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 12-17 is/are rejected.
- 7) ☒ Claim(s) 2 and 5-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/27/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 15, 16 (Figure 1), and Te (Figure 8). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Tb (page 24, line 23, etc.). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be

labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to because of the following informalities:
 - a. Figure 5, T_{s2} , T_{s1} , T_{f2} , T_{f1} (representing timing) should be labeled as t_{s2} , t_{s1} , t_{f2} , t_{f1} , respectively.
 - b. Figure 6, add "YES" between steps ST503 and ST504.
 - c. Figure 6, add "NO" between steps ST503 and ST505.
 - d. Figure 6, step ST506, $T_{s20}C$ should be $T_{s2}^{\circ}C$.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

6. Claim 17 (Currently Amended) is objected to because of the following informality: line 8, "using a" should be "using". Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 3, 12, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato (US Pat. No. 5,899,599).

The patent discloses an image forming apparatus and method, comprising: an image former PC, CH, D, T that forms and holds an unfixed toner image on a recording medium SH fed to an image forming area (Figure 1B); and a heat-fixing apparatus 100

that heats the recording medium SH transported from the image forming area in a predetermined fixing area (between rollers 1 and 4; Figure 1A) and heats the unfixed toner image onto the recording medium SH; wherein the heat-fixing apparatus 100 comprising: an image heating body 1 that heats the unfixed toner image on the recording medium SH; a heat-producer 5 that heats the image heating body 1 (column 11, lines 30-34); a temperature sensor (thermistor) TM that detects a temperature of the image heating body 1; and a calorific value controller 3 that controls a calorific value of the heat-producer 5 based on the temperature detected by the temperature sensor TM (column 7, line 66 to column 8, line 31); and the image forming apparatus has an image forming operation controller that controls an image forming operation of the image former PC, CH, D, T so that heat-fixing of the unfixed toner image onto the recording medium SH is started a predetermined timing before the temperature detected by the temperature sensor TM reaches the image fixing temperature (column 10, lines 58-67).

The patent further discloses at least part of the image heating body 1 has electrical conductivity and the heat-producer 5 comprises an excitation section that heats the image heating body 1 directly by means of electromagnetic induction (inherently; column 11, lines 30-34); and the calorific value controller 3 controls the calorific value of the heat-producing section, based on the temperature detected by the temperature sensor TM, so that the temperature of the image heating body 1 is maintained at the image fixing temperature suitable for heat-fixing the unfixed toner image onto plain paper used as the recording medium SH (column 8, lines 14-32).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato in view of Samei et al. (US Pat. Pub. No. US 2002/0085867 A1)

Kato, as discussed above, differs from the instant claimed invention in not disclosing the heat-producer comprising a rotatable heat-producing member at least part of which has electrical conductivity and is in contact with the image heating body and heats the image heating body indirectly, and the image heating body being a belt-shaped member.

Samei et al. discloses a heat-fixing apparatus 19 comprising an image heating body 23 being configured as a belt-shaped member (Figure 2); a heat producer 26

including a rotatable heat-producing member 21 at least part of which has electrical conductivity and is in contact with the image heating body 23 and heats the image heating body indirectly (paragraphs [0037] and [0038]; Figure 2); and an excitatory (a coil – a magnetization means) 27 heating the heat-producing member 21 by means of electromagnetic induction (paragraph [0054]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the heat-fixing apparatus as taught by Samei et al. in place of the heat-fixing apparatus of Kato because of the same functionality for fixing the unfixed toner image onto the recording medium.

12. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato in view of Moritani (US Pat. No. 5,299,870).

Kato, as discussed above, differs from the instant claimed invention in not disclosing the details of the temperature sensor.

Moritani discloses a heat-fixing apparatus comprising an image heating body 1; a heat-producer H; and a temperature sensor 3 comprising a temperature measuring element 8 that detects a temperature of the image heating body 1, and a nonmetallic elastic body 4, sponge, that supports the temperature measuring element 8 and is in contact with the image heating body 1 at low pressure (column 2, lines 33-58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the temperature sensor as taught by Moritani in place of the temperature sensor of Kato because of the same functionality for measuring the temperature of the image heating body.

Allowable Subject Matter

13. Claims 2 and 5-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Other Prior Art

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ozawa et al. (US Pat. No. 6,025,856) discloses a temperature sensor including a thermistor and a holding member of silicone sponge.

Tatematsu et al. (US Pat. Pub. No. US 2003/0161651 A1) discloses an image heating device comprising a fixing belt, a heating roller, a magnetization coil, and a temperature sensor.

Matsumoto (US Pat. Pub. No. US 2005/0214012 A1) discloses an image forming apparatus comprising a heat fixing apparatus having a fixing controlling mechanism.

Contact Information

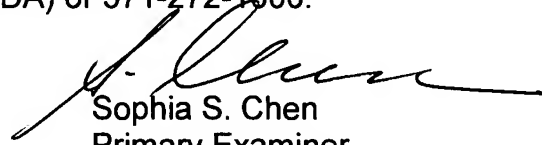
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sophia S. Chen whose telephone number is (571) 272-2133. The examiner can normally be reached on M-F (7:00-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on (571) 272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Sophia S. Chen
Primary Examiner
Art Unit 2852

Ssc
November 15, 2007